No. 94-2003

In the Supreme Court

OF THE

United States

OCTOBER TERM, 1995

LOTUS DEVELOPMENT CORP.,
Petitioner

vs.

BORLAND INTERNATIONAL INC.,
Respondent

On Writ Of Certiorari To The United States Court Of Appeals For The First Circuit

Motion For Leave To File Brief Amicus Curiae and Brief Amicus Curiae of Howard C. Anawalt In Support of Respondent

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18 pp

Pursuant to Rule 37.3(b) of the Supreme Court of the United States, I respectfully move for leave to file the accompanying brief *amicus curiae* which argues for affirmance of the First Circuit Court of Appeals decision in this case. Consent of the attorneys for Borland International, Inc. was requested by letter dated October 25, 1995, and by telefax and letter dated November 20, 1995, but has been refused by telephone on November 28, 1995. Consent of the attorneys for Lotus Development Corporation has been requested by letter dated October 25, 1995, by telefax and letter sent by certified mail on November 20, 1995, and through several telephone messages, but has not been received.

As a professor of law who teaches courses in the protection of intellectual property with a particular emphasis on high technology, I am vitally interested in the development of the law of copyright as it pertains to the protection of computer programs. I believe there is tension in the law as applied to computer programs because of their functional nature, and that the statutory restriction on copyrights which bars protection for ideas, processes, *etc.*, Section 102(b) of the Copyright Act, 17 U.S.C. §102(b), mandates affirmance of the Court of Appeals decision.

The analysis in this brief presents the view that Section 102(b) refers to an integrated domain of matter, including ideas and utilitarian or functional applications of those ideas, rather than a list of discrete items barred from copyright protection. I do not believe this particular view is otherwise presented in the briefs submitted in this case. I conclude that the menu command hierarchy of Lotus 1-2-3 constitutes a function which falls within the latter portion of this integrated domain, and it must therefore be denied copyright protection.

For the reasons set forth above, I respectfully request that this Court grant this motion for leave to file the accompany-

ing brief *amicus curiae* arguing for affirmance of the First Circuit Court of Appeals decision.

Respectfully submitted,

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Interest of *Amicus Curiae*

I am a professor of law and director of the High Tech Law Program at the School of Law, University of Santa Clara, Santa Clara, California. I teach courses on the protection of intellectual property and on computer law, and am the author of the book *Ideas in the Workplace: Planning for Protection* (1988) and co-author of *Licensing Law Handbook* (1991). I have no financial interest in either party, nor in the outcome of this case. My interest is based on the impact this case will have on the current law regarding the application of copyright protection to computer programs. I believe that affirmation of the First Circuit Court of Appeals decision is necessary to uphold the statutory limitation which confines copyright to expressive non-functional works.

SUMMARY OF ARGUMENT

Section 102(b) of the Copyright Act, 17 U.S.C. §102(b), refers to an integrated domain of matter, including ideas and utilitarian or functional applications of those ideas, rather than a list of discrete items barred from copyright protection. The menu command hierarchy of Lotus 1-2-3 constitutes a function which falls within the latter portion of this integrated domain, and it must therefore be denied copyright protection.

ARGUMENT

Introduction

This friend of the court brief is submitted to support the decision of the First Circuit Court of Appeals which correctly excluded a computer program command hierarchy from copyright protection pursuant to Section 102(b) of the Copyright Act, 17 U.S.C. §102(b).

The menu command hierarchy in this case represents the set and sequence of commands necessary to make the particular program perform tasks that its human operator has set out for it.[1]

I

Section 102(b) excludes ideas and predominantly utilitarian elements from copyright protection

Section 102(b) states its exclusion from copyright in clear and direct terms: copyright protection does not extend to ideas, procedures, processes, systems, methods of operation, concepts, principles, or discoveries.

Section 102(b) denotes two related types of matter, combined into an integrated realm which is excluded from copyright, rather than a listing of discrete topics of non-copyrightable subject matter. "Procedure," "process," "system," and "method" are synonyms or convey similar meanings;[2] "discovery" conveys the idea of obtaining "knowledge

[1]". . . Borland did not copy any of Lotus's underlying computer code; it copied only the words and structure of Lotus's menu command hierarchy." *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807, 810 (1st Cir. 1995).

[2]Synonyms for "process" include "method" and "procedure"; for "method" include "procedure," "process," "system." Marc McCutcheon, *Roget's Superthesaurus* 403 (Writer's Digest Books 1995) [hereinafter *Roget's*].

of, as through study."[3] All four words are also used to mean patentable subject matter.[4] While dictionaries provide different specific meanings to "idea," "concept" and "principle," all three words contain a deep common thread in that they denote thoughts at a high level of abstraction or generality.[5]

Section 102(b) is an instance where the words support each other. "It is a familiar principle of statutory construction that words grouped in a list should be given related meaning."[6]

The legislative history of Section 102 confirms that Congress intended to exclude a general sphere of matters. In explaining the section, the House Report stated:

> Copyright does not preclude others from using the ideas or information revealed by the author's work. It pertains to the literary, musical, graphic, or artistic *form in which the author expressed intellectual concepts*. . . .
>
> Some concern has been expressed lest copyright in computer programs should extend protection to the

[3]The American Heritage College Dictionary 396 (3rd ed. 1993) [hereinafter *Dictionary*].

[4]See *infra* text accompanying notes 11 and 12.

[5]Indeed, *Roget's* lists "concept" as a synonym for "idea." *Roget's, supra* note 2, at 261. The word "concept" may denote or connote a certain tinge or variety of idea: "a general idea derived or inferred from specific instances or occurrences." *Dictionary, supra* note 3, at 2ℓ8. A Ninth Circuit case notes "concept" and "idea" are synonyms in Section 102(b), *Olson v. Nat'l Broadcasting Co., Inc.*, 855 F.2d 1446, 1451 (9th Cir. 1988).

[6]*Third Nat'l. Bank in Nashville v. Impac Ltd.*, 432 U.S. 312, 322 (1977). The principle is also know by its Latin maxim, *noscitur a sociis*. *See also Texas & New Orleans R.R. Co. v. Brotherhood of Ry. & S.S. Clerks*, 281 U.S. 548, 568 (1930).

> methodology or processes adopted by the programmer, rather than merely to the "writing" expressing his ideas. Section 102(b) is intended, among other things, to make clear that the expression *adopted by the programmer is the copyrightable element in a computer program,* and that the actual processes or methods embodied in the program are not within the scope of the copyright law.
>
> Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. *Its purpose is to restate,* in the context of the new single Federal system of copyright, *that the basic dichotomy between expression and idea remains unchanged.*[7]

The quoted paragraphs point to a general concept that separates protectable from unprotectable matters. Protectable matter is the form in which one has "expressed intellectual concepts." On the other hand, ideas and strictly utilitarian applications of those ideas must remain outside the realm of protection.

The report also emphasizes that while computer programs may obtain copyright protection, they must remain subject to the same line of exclusion as other works. Congress addressed the concern that computer program copyrights would extend protection to the programmer's methodology or processes by reaffirming the rejection of protecting ideas in themselves. Because a computer program functions, in addition to representing expression, it presents more of a risk that its utilitarian ideas, its "methodologies or processes,"

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[7]H.R. Rept. No. 1476, 94th Cong., 2d Sess. 56-57 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5670 [hereinafter *House Report*]. Italics have been added.

might gain protection.[8] Section 102(b) assures that this will not happen.

A. Section 102(b) excludes ideas from copyright protection

The primary concept of Section 102(b) is that broad ideas, concepts and principles can not gain protection. This concept is firmly established in the famous *Nichols* case.[9] Ideas in themselves may not be copyrighted, because they appropriate far more than a particular expression. The ideas "love" and "freedom" are amongst the most expressive of human concepts. One can express these ideas in a huge number of different ways, yet the core ideas themselves cannot be held by copyright. Similarly, the general idea of organizing commands in a graphical menu is not protectable.

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[8]The species of copyright protection that has evolved since *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983), *cert. dismissed*, 464 U.S. 1033 (1984), represents a kind of "technological copyright" in that the expression protected actually becomes implemented in governing the physical processes of a machine. In computer programming the word "function" has a special meaning. The sentence in the body could also be phrased: "Because a computer program *directs how a computer operates*, in addition to representing expression, it presents more of a risk that its utilitarian ideas . . ."

[9]*Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) (" . . . there is a point . . . where they are no longer protected, since otherwise the playwright could prevent the use of his "ideas," to which, apart from their expression, his property is never extended."). *See also Feist Publications, Inc. v. Rural Telephone Serv. Co.*, 499 U.S. 340, 344-5 (1991), stating: "The most fundamental axiom of copyright law is that '[n]o author may copyright his ideas or the facts he narrates.' ") (citations omitted).

B. Section 102(b) excludes utilitarian elements from copyright protection

A second aspect of Section 102(b) *combines with* the norm excluding ideas. This second strand excludes strictly utilitarian or functioning applications of ideas that are properly the subject of patent law.[10] Four of the words used in Section 102(b) specifically relate to matters that may be the subject of patents. Sections 100(b) and 101 of the Patent Act, 35 U.S.C. §§100(b) & 101, specifically include "processes" and "methods." Section 101(a) of the Patent Act also uses "discovery" as a synonym for "invention."[11] Furthermore, a "concept" once reduced to practice and applied in a concrete way constitutes patentable subject matter.[12] As stated by the Federal Circuit:

> Thus, patent and copyright laws protect distinct aspects of a computer program. *See Baker v. Selden,* 101 U.S. 99, 103, 25 L. Ed. 841 (1879). Title 35 protects the process or method; Title 17 protects the expression of that process or method.[13]

The legislative history directly affirms the distinction between the domain of patent law and that of copyright.[14] Patent covers utility.[15] Copyright covers non-utilitarian or non-functional expressive matters, with the notable exception of the "technological copyrights" presented by computer programs.[16]

The Copyright Act rejects protection of pure utility or function most clearly with regard to pictorial, graphic, and sculptural works. These can receive protection under the Act, but only to the extent that one excludes "their mechanical or utilitarian aspects."[17] The design of a "useful article," defined as an article "having an intrinsic utilitarian function," can be considered a protectable "pictorial, graphic, or sculptural work" only when its pictorial, etc. features "can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the work."[18]

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[10] The utilitarian exclusion ties closely to the norm excluding ideas. If one separates the "utility" strand from the "abstraction/idea" strand in the analysis, the line of demarcation ought not be too sharply drawn. Section 102(b) excludes protection of abstraction and, especially, those matters that are utilitarian abstractions. A definition of method denotes a general means of doing something: "A means or manner of procedure, esp. a regular and systematic way of accomplishing something." *Dictionary, supra* note 3, at 857.

[11] "The term "invention" means invention or discovery." 35 U.S.C. §101(a).

[12] The concept must be reduced to practice so that when described in the patent specification it will "enable any person skilled in the art" to practice it. 35 U.S.C. §112. Priority in patent claims goes to the one who pursues the process from conception to reduction to practice with due diligence. 35 U.S.C. §102(g).

[13] *Atari Games Corp. v. Nintendo of Am., Inc.,* 975 F.2d 832, 839 (Fed. Cir. 1992). A patent application which fails to reduce a concept to practice runs afoul of the principle that an idea alone may not be patented, *see Gottschalk v. Benson,* 409 U.S. 63, 67 (1972). Neither copyright nor patent protects ideas in the abstract.

[14] *See supra* text accompanying note 7.

[15] With the exception of design patents. 35 U.S.C. §171.

[16] *See supra* note 8. "Architectural works" constitute a special group of particularly utilitarian works protected by copyright, but that class does not appear relevant to the present case. 17 U.S.C. §§101 (definition of "architectural work") & 102(a)(8).

[17] 17 U.S.C. §101 (definition of "pictorial, graphic, and sculptural works").

[18] 17 U.S.C. §101 (definition of "useful article").

The *House Report* indicates that protection was assured for pictorial, graphic, and sculptural works embodied in useful articles because Congress wished to continue protection for works of "applied art" which had previously been accorded by the decision of the Supreme Court in *Mazer v. Stein*, 347 U.S. 201 (1954). The report stated that in adopting the definition of "useful article" it sought "to draw as clear a line as possible between copyrightable works of applied art and uncopyrightable works of industrial design."[19]

Under the foregoing analysis, a menu command hierarchy constitutes a strictly functional or utilitarian element that must be denied protection under Section 102(b).

II

Copyright does not extend to those aspects of a computer interface which constitute the command function

According to both the District Court and the Court of Appeals, "the Lotus developers made some expressive choices in choosing and arranging the Lotus command terms. . . ."[20] To illustrate this fact the District Court stated: "The 'Copy' command could be called 'Clone,' 'Ditto,' 'Duplicate,' 'Imitate,' 'Mimic,' 'Replicate,' and 'Reproduce,'

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[19] *House Report, supra* note 7, at 55, 1976 U.S.C.C.A.N. at 5668.

[20] The Court of Appeals noted: "Under the district court's reasoning, Lotus's decision to employ hierarchically arranged command terms to operate its program could not foreclose its competitors from also employing hierarchically arranged command terms to operate their programs, but it did foreclose them from employing the specific command terms and arrangement that Lotus had used." 49 F.3d at 816. The Court of Appeals accepted "the district court's finding that Lotus developers made some expressive choices in choosing and arranging" the command terms. *Id.*

among others . . . ."[21] The Court of Appeals ruled that nonetheless these particular choices became part of an entire structure which constituted a "method of operation."[22] This conclusion is correct in that it has determined that the hierarchy falls within Section 102(b). The command hierarchy's sole purpose is to channel the precise human steps necessary to get the program to do its job. In order to use a computer program, a user must provide the commands that trigger operations controlled by the computer program itself.[23]

The Lotus hierarchy, including the names of individual commands, constitutes a *pure command function.*[24] In each case the key sequences input within the framework of the menu command hierarchy activate some response in the computer causing it to perform an operation. The menu command hierarchy, including its specific commands, is merely the tool used to cause the program to operate. Once

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[21] *Lotus Dev. Corp. v. Borland Int'l Inc.*, 799 F.Supp. 203, 217 (D. Mass. 1992). Expressive identification of commands might well be protected. For example, "quit" might be expressed by "watermelon," "Kamo" (duck — Japanese), or an image of one punching out at a time clock. It appears that no such originality of expression is present in this case.

[22] 49 F.3rd at 815. The portion of Borland's Quattro Pro program at issue is the "Key Reader," which allows the program to interpret and perform some Lotus 1-2-3 macros. *Id.* at 811. In order to do so, the Key Reader file contains a copy of the Lotus 1-2-3 menu command hierarchy. *Id.* at 812.

[23] The Court of Appeals likened the commands to buttons used to control a VCR. *Id.* at 817. The authors of this brief have not examined the record, but rely on the construction of facts set forth in the published opinions for all factual observations.

[24] The definition of "command" comports with this observation, but the argument is not a semantic one. Command means "to direct with authority" or in computer science, "a signal that initiates an operation defined by an instruction." *Dictionary, supra* note 3, at 279.

utilized by a user to construct a macro (*e.g.*, a series of operations which can be executed through a single keystroke), its use is critical to the operation of the macro. The command hierarchy, including the command terms, thus constitutes pure function. As such, the hierarchy must be excluded from copyright by Section 102(b).

Examples from copyright and other branches of law that further recognize that words sometimes express ideas, while at other times they constitute action or serve a function, support the division between words as expression of ideas and the functional use of words. When this is the case, the law treats the words as something other than mere expression.

Rules of a game have been held to be not protectable by copyright.[25] The particular way in which the rules are described or expressed will be narrowly protected, however.[26] The menu command hierarchy presents a similar case. Expression, if any, found within the command hierarchy should only be protected to the extent of expressive value independent of the command function.[27]

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[25] *Affiliated Hosp. Prod., Inc. v. Merdel Game Mfg. Co.*, 513 F.2d 1183, 1188-89 (2d Cir. 1975).

[26] *Id.*

[27] Intellectual property law has wrestled with the function/expression demarcation in a variety of other areas. We advert to some in this footnote. In *Sega Enter. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992) the Court rejected a trademark claim where the display of the mark "S-E-G-A" became a functional aspect of operation of the game itself, stating, that a "trademark owner may not enjoy a monopoly over the functional use of the mark." *Id.* at 1531. The trial court in *Computer Assoc. Int'l, Inc. v. Altai, Inc.*, 775 F.Supp. 544, 559-560 (E.D.N.Y. 1991), *aff'd in part*, 982 F.2d 693 (2nd Cir. 1992), emphasized the behavioral aspect of a computer program in distinguishing between the static structure, sequence and organization of the computer program, represented by the program's copyrighted text, and the dynamic structure represented by the program's behavior. The court noted there was no relationship between the structure of the text (the source and object codes) and the sequence of operations in a program, which are behavior. Finally, the court stated the program's behavioral aspect fell within the statutory terms of "process," "system" and "method of operation" in Section 102(b). The static versus dynamic structure distinction was referred to approvingly by the Second Circuit in affirming the case. *Id.* at 706.

In other areas, when function overtakes expression, the law recognizes that the "expressive" or communicative aspect must be treated differently than when pure expression is involved. For instance, the words "pay to the order of" endorsed on the back of a check function to transfer the rights in the check to another.[28] In common experience one acknowledges when function overtakes expression by responding with action rather than words. Giving the military command of "fire" to a line of armed soldiers acts as the event which triggers the discharge of weapons.[29] In any other situation in which the imperative voice is used, the anticipated response is action rather than verbal expression.

Lotus's organization of command terms into the menu command hierarchy, may contain expression, but it also serves a utilitarian role, it commands the program to perform an operation.

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[28] U.C.C. §3-110(1).

[29] Some words are so imbued with action that they are themselves treated as conduct. The classic case in First Amendment law is the treatment of "fighting words." These are "personally abusive epithets which, when addressed to the ordinary citizen, are, as a matter of common knowledge, inherently likely to provoke violent reaction." *Cohen v. California*, 403 U.S. 15, 20 (1971). See also *R.A.V. v. City of St. Paul*, 505 U.S. 377, 381 (1992).

III

Conclusion

Section 102(b) requires that a computer menu command hierarchy be denied copyright protection. Such a hierarchy as used operates as a *pure command function*. Only if the expressive aspect can be separated from the function of command can that separated aspect alone be protected by copyright. The menu hierarchy in this case should accordingly be denied copyright protection.

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